REMARKS

Claims 2 and 4-12 remain in the application. Claims 1 and 13-17 were previously canceled without prejudice. Claim 3 is hereby canceled without prejudice. Claims 2, 4 and 5 are hereby amended. No new matter is being added.

Claim Rejections--Section 103

Claims 2 and 4-12 stand rejected under 35 USC 103(a) as being unpatentable over DeHann (USP 6,937,655) in view of Doricutt (USP 5,329,309). Applicants respectfully traverse this rejection with respect to the claims as now amended.

Amended claim 2 recites as follows.

2. A method for interlacing a progressive video sequence to produce **an interlaced video sequence of alternating odd and even fields**, the method comprising:

obtaining at least two consecutive frames of a progressive scan video sequence;

segmenting at least one of said frames into constituent objects;

estimating a motion of said constituent objects between the at least two frames;

using the estimated motion for each object between frames to interpolate the motion of each object between the first frame and an intermediate frame;

using the interpolated motion for each object to construct the intermediate frame;

extracting a first alternating field from the first frame; and

extracting a second alternating field from the intermediate frame,

wherein the first and second alternating fields comprise the odd and even fields of the interlaced video sequence.

(Emphasis added.)

As seen from the above, claim 2 relates to **"[a] method for interlacing a progressive video sequence to produce an interlaced video sequence of**

alternating odd and even fields ...." Furthermore, amended claim 2 now also requires "**extracting a first alternating field from the first frame; and extracting a second alternating field from the intermediate frame, wherein the first and second alternating fields comprise the odd and even fields of the interlaced video sequence.**"

The steps added to claim 2 relate to steps in original claim 3, which is now canceled hereby. The odd and even fields now recited in claim 2 are discussed, for example, on page 3 of the specification which explains as follows.

> In an interlaced display, each resultant image of a single one of the two interlaced scans is referred to as a "field" (as opposed to the entire "frame" presented during progressive scan). By convention, **the two fields that together fill the pixel array are referred to herein as an odd field and an even field, representing the odd numbered rows and the even numbered rows, respectively.** Fig. 1 illustrates the division of an image into an odd field and an even field. Full frame 100 consists of a lightly shaded background and two overlapping gray rectangles. The division of the frame into rows is depicted, and the width of the rows is enlarged beyond typical pixel width for illustrative purposes. Odd field 110 contains only the image data contained in the odd rows, while even field 120 contains only the image data contained in the even rows. If overlaid, the odd field 110 and the even field 120 will reconstitute the full frame 100.
>
> (Emphasis added.)

Furthermore, the overall method of claim 2 is described in the application in relation to FIG. 7, which is reproduced below for convenience of reference.

Flow Chart

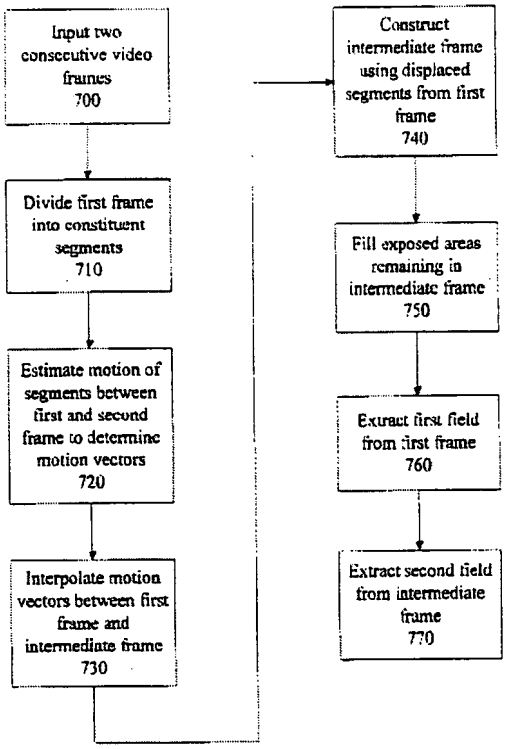


Fig. 7

Applicants respectfully submit that claim 2, as now amended, is patentably distinguished over DeHann in view of Doricutt.

Regarding DeHann, applicants respectfully submit that FIGS 1-3 and related text in DeHann do not teach "**[a] method for interlacing a progressive video sequence to produce an interlaced video sequence of alternating odd and even fields** ...." Furthermore, DeHann et al does not disclose or teach a technique for "**extracting a first alternating field from the first frame; and extracting a second alternating field from the intermediate frame, wherein**

the first and second alternating fields comprise the odd and even fields of the interlaced video sequence."

Instead, FIGS. 1-3 of DeHann pertain to recognizing film and video objects. This is shown in FIGS. 1-3, which are reproduced below for convenience of reference.

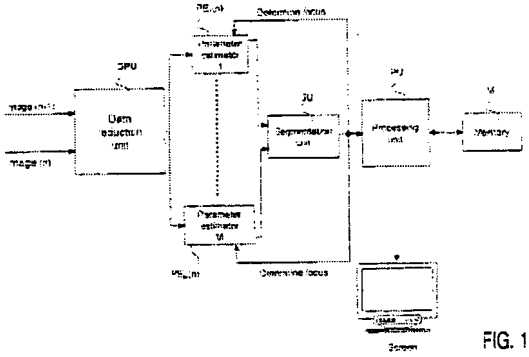


FIG. 1

FIG. 2A

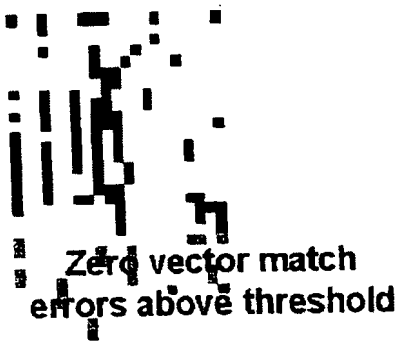


FIG. 2C

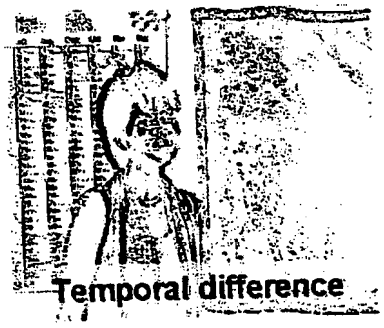


FIG. 2B

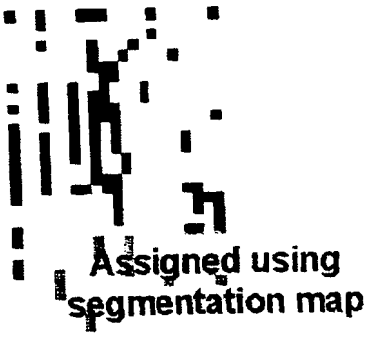


FIG. 2D

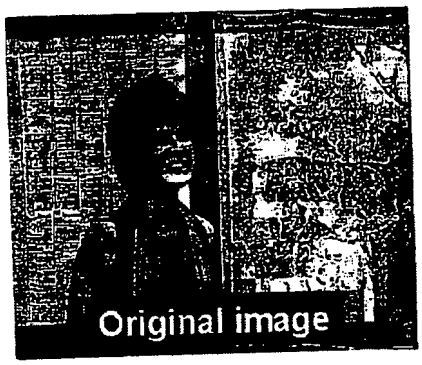


FIG. 3A

FIG. 3C

FIG. 3B

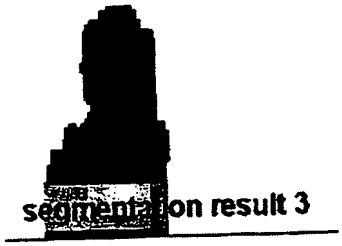


FIG. 3D

As seen from the figures above, DeHann no extraction of odd and even fields from original and intermediate frames are disclosed or taught by FIGS. 1-3 of DeHann.

Regarding Doricutt, applicants respectfully submit that the claimed invention pertains to **an improved technique for converting from progressive to interlaced video**. This technique involves **using estimated motion of the objects between progressive frames in creating an intermediate frame. A first field (for example, an odd field) may then be extracted from a first progressive frame, and a second field (for example, an even field) may then be extracted from the newly created intermediate frame**. This sequence of fields makes up a **"smoother"** version of an interlaced video.

For at least the above discussed reasons, applicants respectfully submit that claim 2 is now patentably distinguished over the applied references.

Claims 4-12 depend from claim 2. As such, applicants respectfully submit that claims 4-12 are also patentably distinguished over the applied references for at least the same reasons as discussed above in relation to claim 2.

For the above discussed reasons, applicants respectfully submit that all pending claims in the application are now in form for allowance.

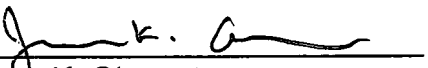
Conclusion

For at least the above reasons, it is respectfully submitted that pending claims 2 and 4-12 are now patentably distinguished over the applied references and in form for allowance.

The Examiner is invited to call the undersigned for any questions. Favorable action is respectfully solicited.

Respectfully submitted,

Gary R. Holt, et al.

Dated: March 12, 2007 By: 

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Enclosure(s)

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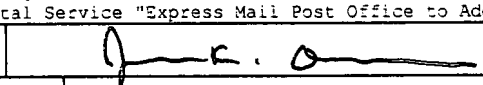
Signature:			
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